10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CKIP1 Antibody

Catalog # ASC10993

Product Information

Application	WB, E
Primary Accession	Q53GL0
Other Accession	NP_057358, 20149626
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	46237
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CKIP1 antibody can be used for detection of CKIP1 by Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	51177
Other Names	Pleckstrin homology domain-containing family O member 1, PH domain-containing family O member 1, C-Jun-binding protein, JBP, Casein kinase 2-interacting protein 1, CK2-interacting protein 1, CKIP-1, Osteoclast maturation-associated gene 120 protein, PLEKHO1, CKIP1, OC120
Target/Specificity	PLEKHO1;
Reconstitution & Storage	CKIP1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CKIP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PLEKHO1
Synonyms	CKIP1, OC120
Function	Plays a role in the regulation of the actin cytoskeleton through its interactions with actin capping protein (CP). May function to target CK2 to the plasma membrane thereby serving as an adapter to facilitate the phosphorylation of CP by protein kinase 2 (CK2). Appears to target ATM to the plasma membrane. Appears to also inhibit tumor cell growth by inhibiting AKT-mediated cell-survival. Also implicated in PI3K-regulated muscle

	differentiation, the regulation of AP-1 activity (plasma membrane bound AP-1 regulator that translocates to the nucleus) and the promotion of apoptosis induced by tumor necrosis factor TNF. When bound to PKB, it inhibits it probably by decreasing PKB level of phosphorylation.
Cellular Location	Cell membrane; Peripheral membrane protein. Nucleus. Cytoplasm Note=Predominantly localized to the plasma membrane through the binding to phosphatidylinositol 3-phosphate (PubMed:14729969). In C2C12 cells, with the absence of growth factor, it is found in the nucleus (PubMed:14729969). It rapidly translocates to the plasma membrane after insulin stimulation (PubMed:14729969). In response to TNF, it translocates from the plasma membrane to the cytoplasm and then to the nucleus accompanied by cleavage by caspase-3 (PubMed:15706351) However, the subcellular location is highly dependent of the cell type, and this explains why it is found exclusively at the plasma membrane, in some type of cells (Probable). {ECO:0000269|PubMed:14729969, ECO:0000269|PubMed:15706351, ECO:0000305}
Tissue Location	Abundantly expressed in skeletal muscle and heart, moderately in kidney, liver, brain and placenta and sparingly in the pancreas and lung. Easily detectable in cell lines such as MOLT-4, HEK293 and Jurkat.

Background

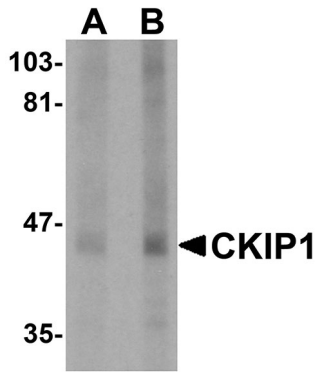
CKIP1 Antibody: CKIP1 was identified through a yeast-two hybrid screening as a protein that would interact with only one of the two catalytic subunits of the casein kinase 2 complex. CKIP1 is a pleckstrin homology domain-containing protein localized within the nucleus and at the plasma membrane that interacts with CK2alpha but not CK2alpha', and is thought to play a role in targeting CK2alpha to a particular cellular location. CKIP1 has been implicated in muscle differentiation and the regulation of cell morphology and actin cytoskeleton. CKIP1 can also interact with other proteins such as ATM, an upstream kinase of p53, and recruit the nuclear ATM to the plasma membrane, suggesting CKIP1 may regulate ATM function through re-localizing ATM. CKIP1 can also form a complex with the kinase AKT, leading to a down-regulation of PI3K/AKT signaling and suppression of tumor growth in vivo.

References

Bosc DG, Graham KC, Sauliner RB, et al. Identification and characterization of CKIP-1, a novel pleckstrin homology domain-containing protein that interacts with protein kinase CK2. J. Biol. Chem.2000; 275:14295-306.
Safi A, Vandromme M, Caussanel S, et al. Role for the pleckstrin homology domain-containing protein CKIP-1 in phosphatidylinositol 3-kinase-regulated muscle differentiation. Mol. Cell Biol.2004; 24:1245-55.
Canton DA, Olsten ME, Kim K, et al. The pleckstrin homology domain-containing protein CKIP-1 is involved in regulation of cell morphology and the actin cytoskeleton and interaction with actin capping protein. Mol. Cell Biol.2005; 25:3519-34.
Zhang L, Tie Y, Tian C, et al. CKIP-1 recruits nuclear ATM partially to the plasma membrane though interaction with ATM. Cell Signal.2006; 1386-95.

Images

Western blot analysis of CKIP1 in human lung tissue lysate with CKIP1 antibody at (A) 1 and (B) 2 µg/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.